ROTEM®

Control & Management

Platinum plus

Platinum Junior

USER MANUAL

(STANDARD)

www.rotem.com

Take Control©

WARRANTY & LIMITATION OF LIABILITY

1. ROTEM warrants that the product shall be free of defects in materials or workmanship and will conform to the technical specification for a period of 1 (one) year from the date of initial installation on site (the "warranty period").
2. Load cells are not covered by ROTEM's warranty.
3. ROTEM warrants that during said warranty period, any item/items or part/parts of equipment found defective with respect to materials or workmanship or which do not conform to the technical specification shall be repaired or replaced (at ROTEM's sole discretion), free of charge.
4. During the warranty period, in the event of an alleged defect, authorized resellers in relevant regions should be notified as soon as possible from the date of noticing the said defect, but no longer than thirty (30) days from such a discovery. The report shall include (1) a short description of the defects noticed (2) type of card / component and its matching serial number.
5. ROTEM's sole liability under this warranty is the repair or replacement of the defective item of product.

Conditions and Limitations

1. **ROTEM will not be responsible for any labor costs or expenses associated with replacement of defective items or other parts of the product or repair.**
2. This warranty shall not cover: (i) product or part therein which has been modified (without prior written approval of ROTEM), or (ii) product or part therein which has not handled or installed by an authorized reseller of ROTEM or (iii) product or part therein which has either handled or installed not in strict accordance with ROTEM's instructions, (iv) products which were used for function other than agriculture industry.
3. This warranty will not apply in the following cases: (i) if all components of the product are not originally supplied by ROTEM (ii) the defect is the result of an act of nature, lighting strikes, electrical power surge or interruption of electricity (iii) the defect is the result of accident, misuse, abuse, alteration, neglect, improper or unauthorized maintenance or repair.

ROTEM warns and alerts all users that the Product is inherently complex and may not be completely free of errors. ROTEM's products are designed and manufactured to provide reliable operation. Strict tests and quality control procedures are applied to every product. However, the possibility that something may fail beyond our control exists. Since these products are designed to operate climate control and other systems in confined livestock environments, where failure may cause severe damage, the user should provide adequate backup and alarm systems. These are to operate critical systems even in case of a ROTEM system failure. Neglecting to provide such a backup will be regarded as the user's willingness to accept the risk of loss, injury and financial damage.

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Except for the above express warranty, ROTEM makes no other warranties, express or implied, relating to the products. ROTEM disclaims and excludes the implied warranties of merchantability and fitness for a particular purpose. No person is authorized to make any other warranty or representation concerning the performance of the products other than as provided by ROTEM.

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GENERAL

Introduction

Standard Mode

Computerized Electronic Controllers such as the Platinum advance the Producer's ability to grow high quality poultry by accurately controlling the environment. Instead of struggling with individual thermostats for heat zones and ventilation, the Platinum brings it all together into one convenient place … with great accuracy.

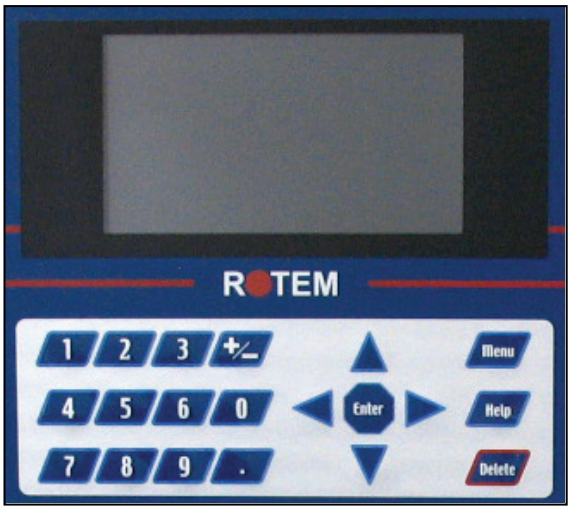
Simplicity and ***Ease of Use*** are important benefits of Standard Mode. Every grower will understand the operation where each fan and heater has its own on and off temperature. The light and feed clocks are easy to understand and apply. In standard mode, the Platinum provides simple alternate methods to help producers who find the more advanced Cool Pad methods too difficult.

The Platinum provides a variety of Management and History utilities. You can choose from simple overviews, or if you wish, fully detailed *by the minute* records of minimum, maximum and average temperatures for each individual sensor. The unique ***Table of Events*** is one of the most liked Histories in the Platinum. It records the moment of every significant action taken by the Platinum and, optionally, its operator.

Communication software is available to customers who wish to access their Platinum controllers from their home or personal computers at **ROTEM's** website, www.rotem.com. **ROTEM** provides technical support on the website, as well as through the large dealer and agent network.

This volume describes the Standard Mode operation of the Platinum. For greater performance, you can opt to use the more advanced Precision Mode, which you will find in the next volume.

Keypad



MENU Enter main menu, also acts as "ESC" or "Back" keys

HELP Access help screens and graphs

DELETE Erase typing mistakes

Enter Enter menus, values, open windows,

Scroll up, down, left and right

1 2 3
4 5 6 0
7 8 9 Enter values, select options and make selections

+/- Toggle between positive and negative values and mark check boxes.

Hot Screens

Many of the keys serve as shortcuts. Here are the main ones:

Hot Screens:

HELP -Software Version

1 -Return to standard main screen

2 -Temperature and Humidity Status

3 -Curve Status

4 -Curtain Position

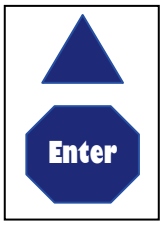
5 -Bird Scale and Feed Bin Status

6 -Light Status

7 -Analog Output Status

9 -Lock password protected controller

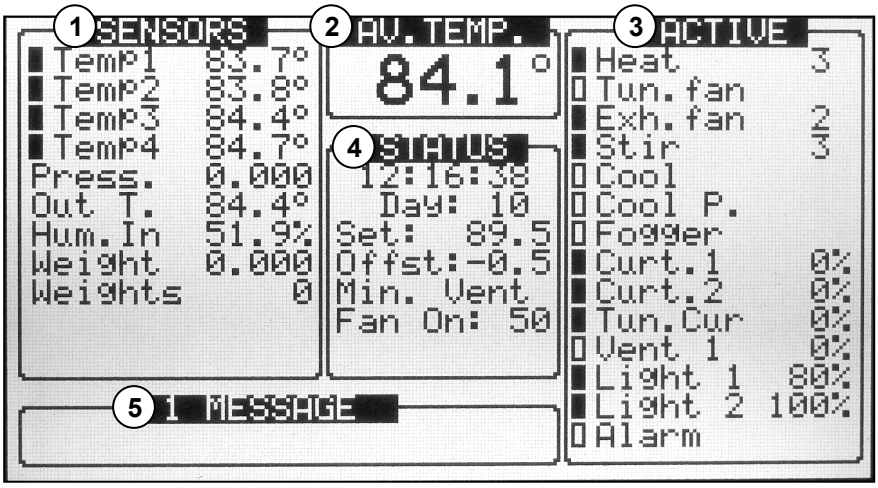
. -Scan through Hot Screens (five seconds per screen)



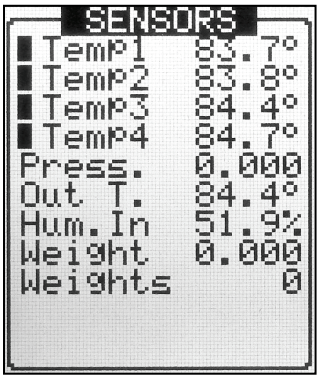
Increase/Decrease Offset from Temperature Setting from the Standard display only (hold both keys) – Defined in the TEMPERATURE CURVE HELP | SET

Standard Display

The main screen consists of five parts.



(1) Shows individual sensor readings. Temperature sensors marked with dark squares form the current average temperature.

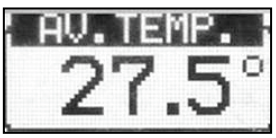


Filled square – indicates the sensor participates in the average calculation.

Empty square - indicates the sensor does not participate in the average calculation.

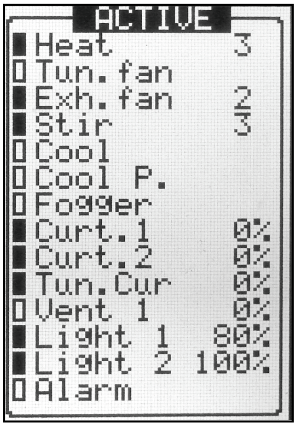
NOTE: *Go to the Precision User Manual APPENDIX:* **SENSOR LIST** *section to view all the possible sensors.*

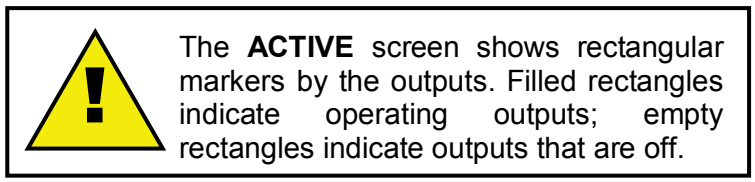
(2) Reports the current average temperature. This example is in Celsius, but yours may be in Fahrenheit.



3 Shows the output relay list. The filled black boxes indicate active outputs. Controller also informs the position of inlets and curtains, as well as the number of operating heaters or fans.

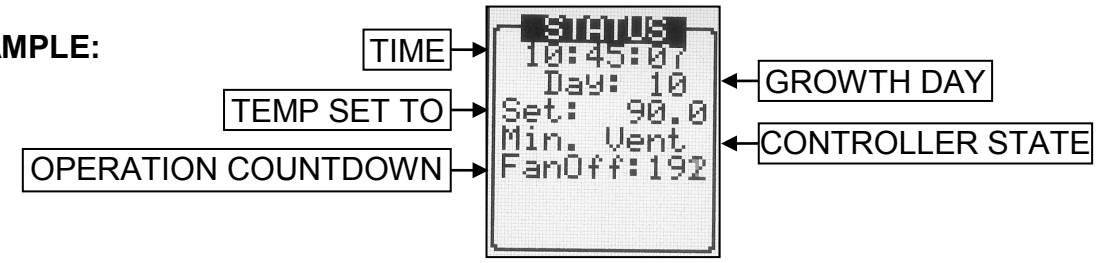
NOTE: *Go to the Precision User Manual APPENDIX:* **OUTPUT LIST** *section to view all the available readings (ACTIVE).*




The **ACTIVE** screen shows rectangular markers by the outputs. Filled rectangles indicate operating outputs; empty rectangles indicate outputs that are off.

4 Status Window gives important general information such as the time and ventilation mode.

EXAMPLE:



NOTE: *Go to the Precision User Manual APPENDIX:* **STATUS LIST** *section to view all the available readings.*

5 Shows important messages/alarms. The title bar shows the number of important messages, and if there are several messages they each appear in turn.

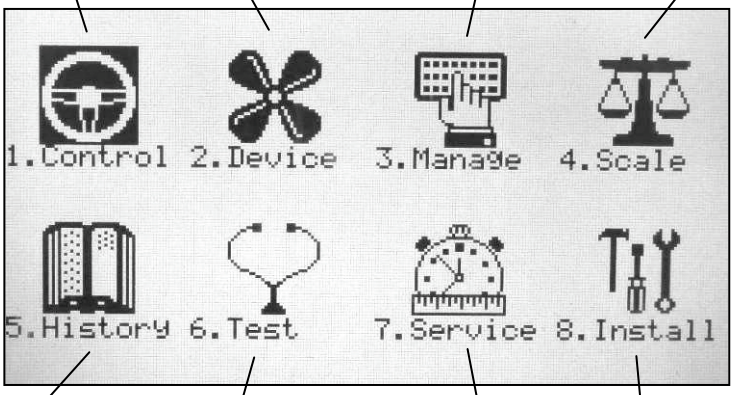
Main Menu Icons

Define settings of all equipment.

Control temperature, humidity, ventilation, static pressure and system parameters.

Manage inventory, livestock, and alarm/password settings.

Set, calibrate and test Bird Scale and Feed Bin Scale.



View history of all functions and data except for Scale.

Install sensors, devices, communication, etc.

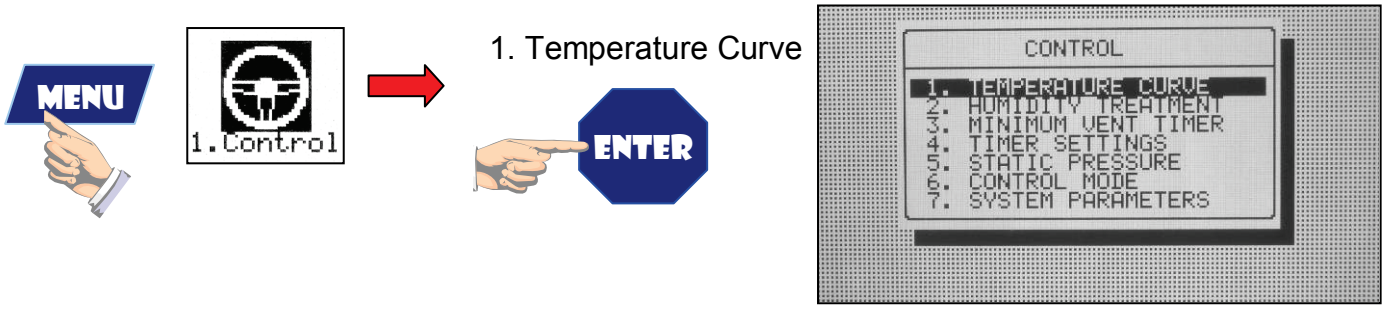
Test to see switches, relays, communication, and alarms are functioning properly.

Calibrate temp., humidity, ventilation, static pressure, feed, water, read/save to plug.

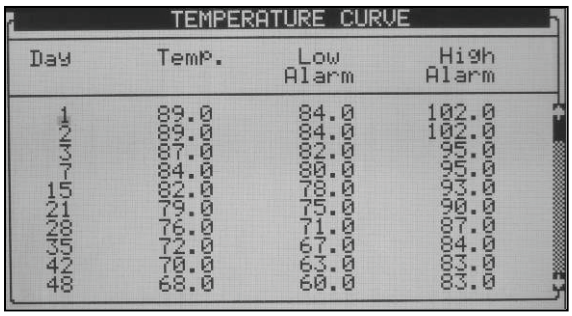
1. CONTROL

1.1 Temperature Curve

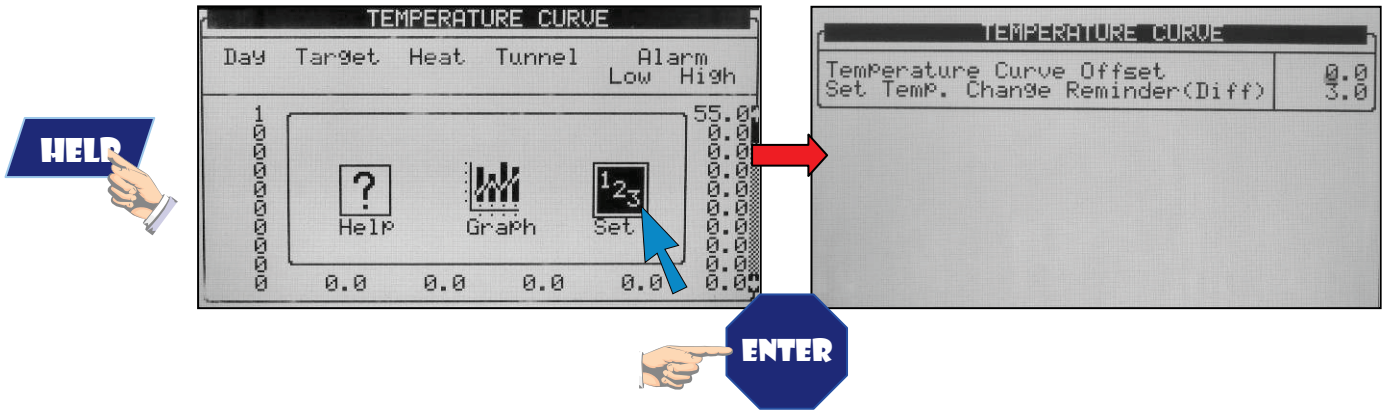
For every growth day define the desired target temperature.



- **Day:** Set Growth Day.
- **Temp.:** Set the temperature to trigger heating to begin.
- **Alarm LOW & HIGH:** Set alarms for when the temperature is too LOW and too HIGH.



TEMPERATURE CURVE HELP | SET



HELP | SET Definitions:

- **Temperature Curve Offset:** Adjustment of all curves either by warmer or cooler temperatures than the one programmed in the curve. This enables the user to set only this parameter instead of defining all the other parameters once again.
- **Set Temp. Change Reminder (Diff):** Sets the change in set temperature triggering a reminder to set backup thermostats.
  NOTE: '0' disables this parameter (If value is changed an appropriate message is displayed).

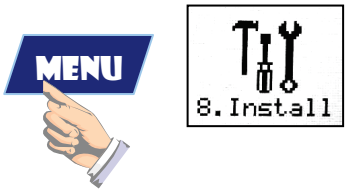
1.2 Humidity Treatment

This section is relevant only in PRECISION MODE ONLY!

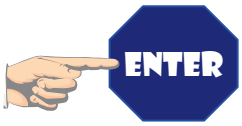
1.3 Minimum Vent Timer

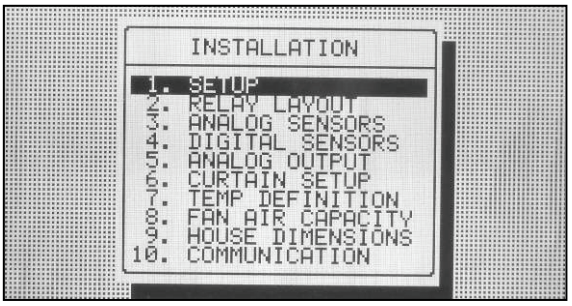
This option allows the user to set the timer of minimum vent. There are three primary setups for the Minimum Vent Timer which is defined through the INSTALL | SETUP menu.

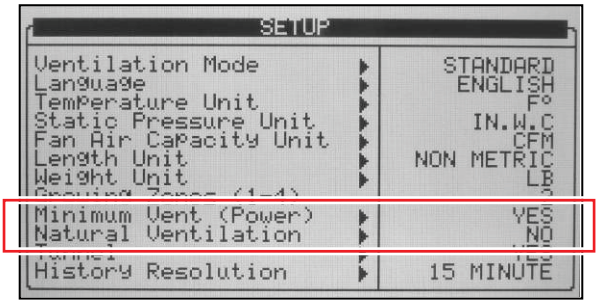
In the INSTALL | SETUP menu the setup for the Minimum Vent Timer can be defined. Below is the factory default of a House using powered minimum ventilation and no Natural Ventilation.



1. Setup



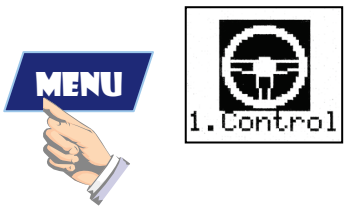




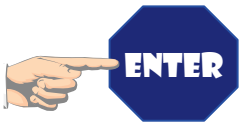
Minimum Vent (Power): YES

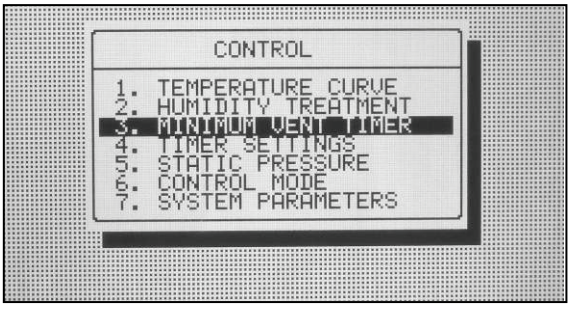
Natural Ventilation: NO

Default setup for the MINIMUM VENT TIMER menu with above selected parameters:

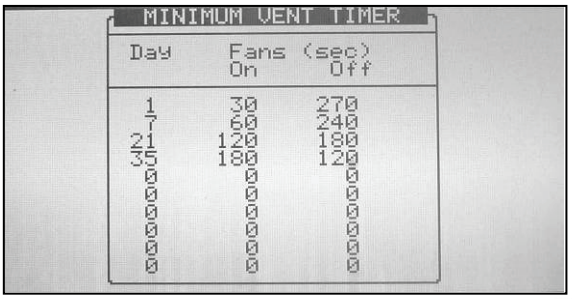


3. Minimum Vent Timer

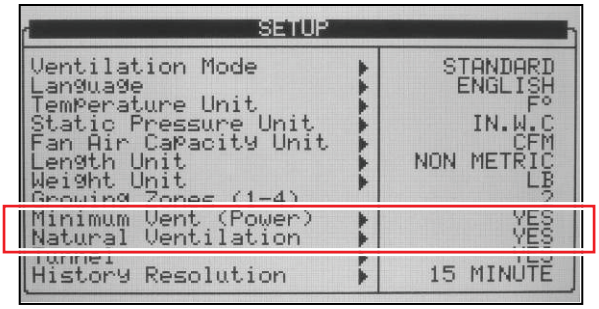




- **Day:** Set growth day.
- **Fans (sec):** Set the time (seconds) defining the cycle for when the fans are **ON/OFF**.

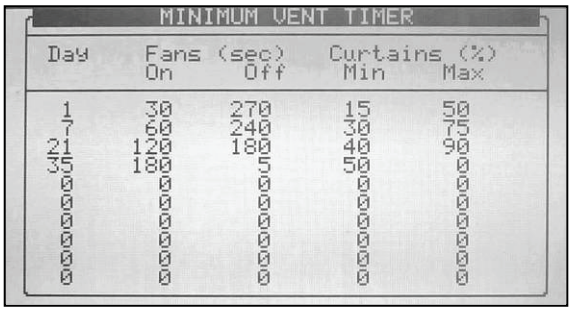


MINIMUM VENT TIMER setup when INSTALL | SETUP parameters are set as the following:



Minimum Vent (Power): YES

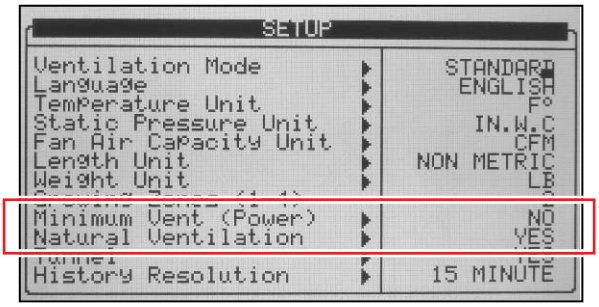
Natural Ventilation: YES



- **Day:** Set growth day.
- **Fans (sec):** Set the time (seconds) defining the cycle for when the fans are **ON/OFF**.
- **Curtains (%):** Set the percentage of minimum vent opening curtains. During minimum vent, the curtains will remain closed, but if the 'Natural Temp' is reached, then the curtain goes from closed to at least the minimum value that has been set ('Min' column).

NOTICE: When the controller reaches natural ventilation (according to the temperature defined in the **CONTROL | Temperature Curve**), all the curtains open to the minimum percentage. Every curtain is independent and can be either closed or opened according to its temperature, but cannot open above the Maximum set value.

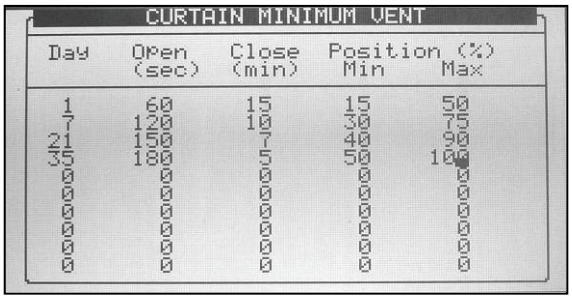
MINIMUM VENT TIMER setup when INSTALL | SETUP parameters are set as the following:



Minimum Vent (Power): NO

Natural Ventilation: YES

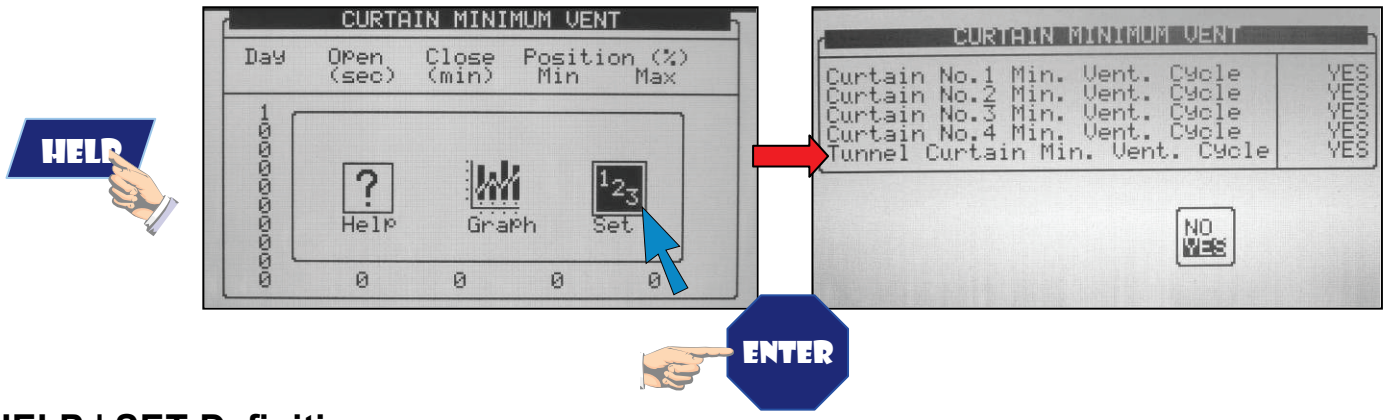
Designed for **'Curtain Only'** houses, you can set the curtains to perform a minimum ventilation, or 'Purge' function.
The curtains open to the 'minimum' position for the '**Open'** number of seconds every '**Close'** number of minutes.



- **Day:** Set growth day.
- **Open (sec):** Set the amount of seconds for curtains to open.
- **Close (min):** Set the amount of minutes for curtains to be closed.
- **Position (%):** Set percentage for curtain position; minimum % and maximum %.

NOTICE: Cycle occurs when values are set both to **'Open'** and **'Close'**. Whereas the controller closes at first and only then opens the "allowed" curtains (See **HELP | SET**).

CURTAIN MINIMUM VENT HELP | SET



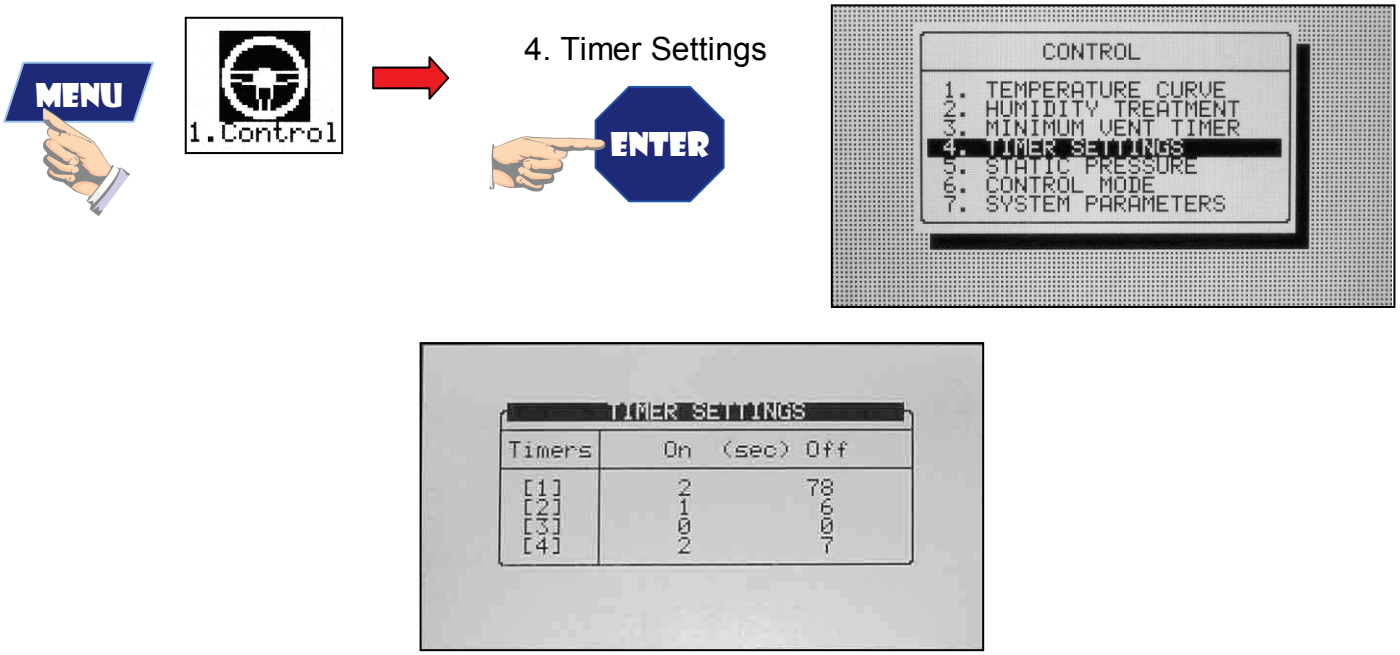
HELP | SET Definitions:

- **Curtain no. 1 - 4 min. vent. Cycle:** Select **Yes** for the current to participate in the Minimum Vent cycle (defined in previous screen) or **No** to remain closed.
- **Tunnel curtain Min. Vent cycle:** Select **Yes** if the curtain defined as Tunnel operates with no fans. Otherwise, select **No.**
  *(**YES** means it participates in the Purge, **NO** means it does not. Usually tunnel curtains are set to cooperate with natural curtains in Natural mode)*

NOTICE: If no fans are set, and power ventilation does not exist, minimum ventilation is executed by curtains.

1.4 Timer Settings

This section enables the user to set the timer on and off according to the user's desire.

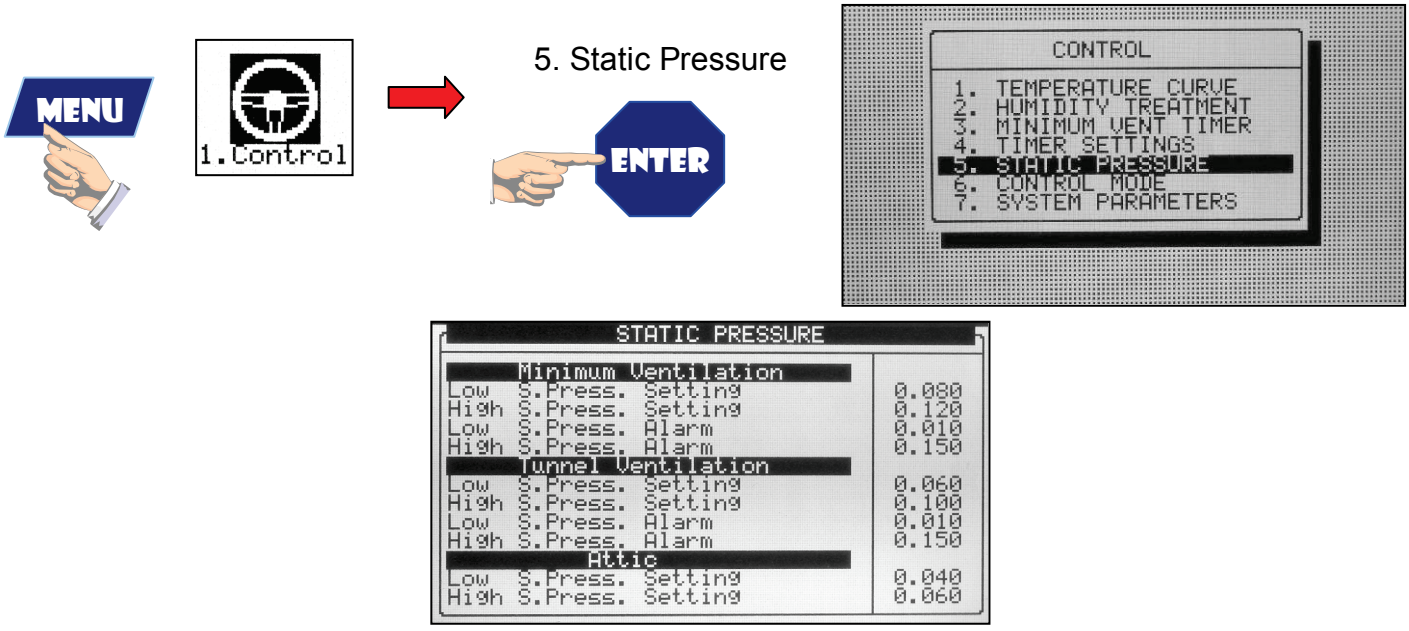


In the **DEVICE | TEMP & TIMER SETTINGS** menu Timer 1 -4 relates to what is defined in this screen. Define the number of seconds for the timer to tell the operation to be **ON** as well as the number of seconds for it to be **OFF**.

Unlike the Min. Vent Timer, this cycle timer also operates above the set temperature.

1.5 Static Pressure

This section controls air pressure in both minimum ventilation and in tunnel ventilation.



MIN VENT

- **Low/High Static Pressure Setting:** Define what LOW/HIGH static pressure is when operating in minimum ventilation.

Low/High Static Pressure Alarm: Set alarm for low/high static pressure. If you disable it by setting zero, the Platinum warns you and enters a record in the Table of Events.

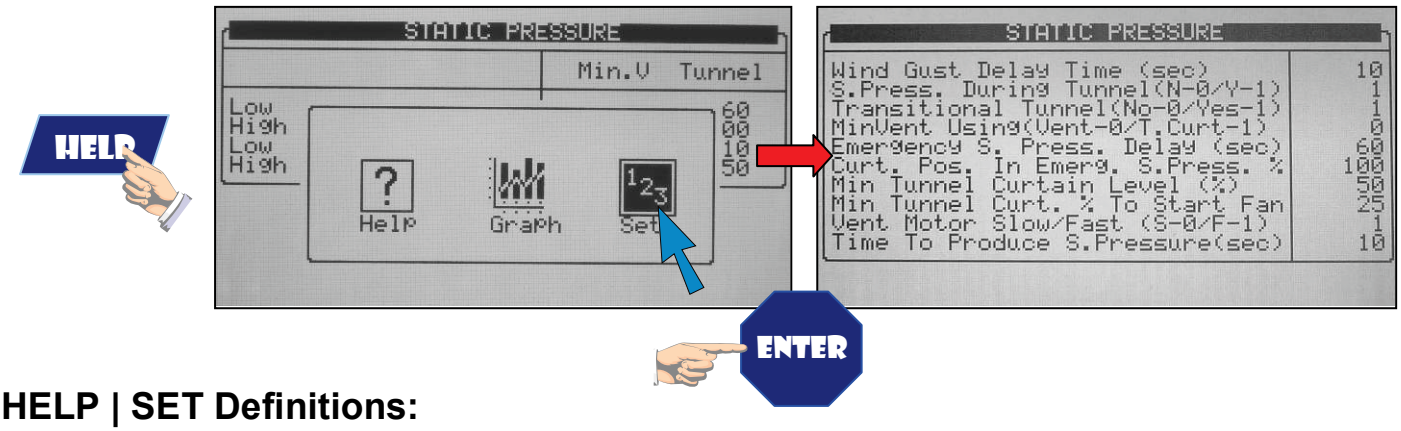
TUNNEL VENTILATION

- **Low/High Static Pressure Setting:** Define what LOW/HIGH static pressure is when operating in tunnel ventilation.
- **Low/High Static Pressure Alarm:** Set alarm for low/high static pressure.

ATTIC

- **Low/High Static Pressure Setting:** Define what LOW/HIGH static pressure is when operating with attic.

STATIC PRESSURE HELP | SET

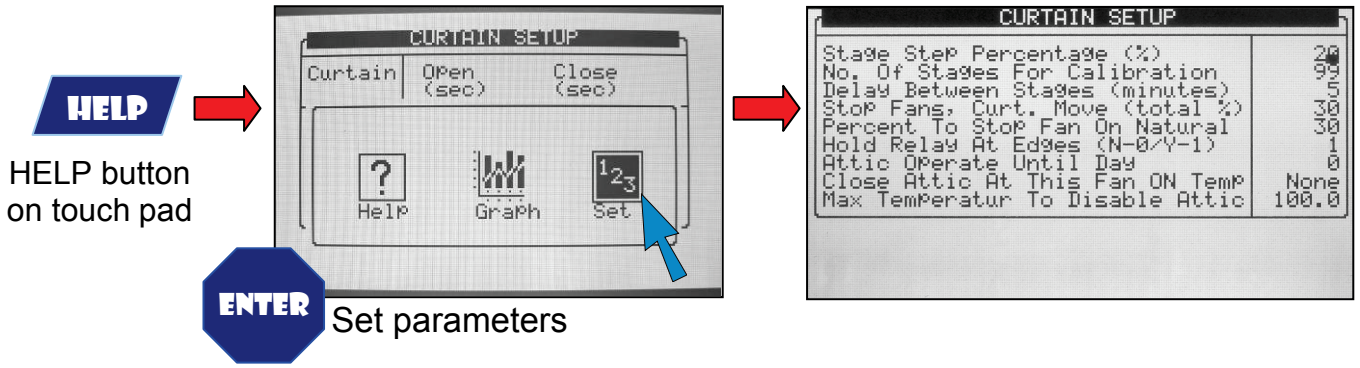


HELP | SET Definitions:

- **Wind Gust Delay Time (sec):** Set length of time (seconds) before starting Static Pressure control after an unexpected change in air pressure.
- **Static Pressure During Tunnel:** Select **YES** or **NO** for using Static Pressure control when in Tunnel mode.
- **Transitional Tunnel:** Select **YES** or **NO** for using tunnel inlets when static pressure is high and vents are already at 100%
- **MinVent Using:** Select **Vent=0** or **Curtain=1** for controlling static pressure when in minimum ventilation.
- **Emergency S. Press. Delay (sec.):** Length of time the ***Platinum*** waits before taking emergency action when static pressure remains above the high pressure alarm setting. Note that chronologically it is important to open and go to the next setting.
- **Curtain Position in Emergency Static Pressure %:** Set the position the currents should go to in an emergency pressure situation.
- **Min Tunnel Curtain Level (%):** When using static pressure in tunnel mode, tunnel inlet opens at least this far in tunnel mode.
- **Min Tunnel Curtain % to Start Fan:** Set a value that serves as a minimum to begin fan operation in tunnel mode.
- **Vent Motor Slow/Fast:** Define whether the engine used is slow or fast. For full movement within 60 seconds or less, it is considered to be **fast=1**, and more than 60 seconds is **slow=0.**
- **Time to produce S. Pressure (sec):** How many seconds are needed for static pressure to stabilize when fan cycle is on. Correction of the first pressure value will be done according to this value.

NOTE: Refer to menu **INSTALL** | ***Curtain Setup*** **HELP** | **SET** for defining additional settings (definitions are provided below)

CURTAIN SETUP – HELP | SET



Stage Step Percentage (%): Set the percentage stage for each step.

No. of Stages for Calibration: After moving the number of times specified in stages for calibration, the curtains go to the nearest limit (either fully open or fully close) one at a time in order to calibrate their position counters. Whenever any curtain reaches one of the limits, its calibration counter automatically resets.

Delay between stages (minutes): (for natural curtains) when waiting at least the length of time specified in the delay between stages before moving again.

Stop fans, curt. Move (total %): Set the total percentage to stop the fan curtains from moving.

Percent to stop fan on Natural: Set the percentage to stop the fan on natural.

Hold Relay at edges: Choosing between holding open and close relays active at 0% and 100% open points or turning them off after a 50% overrun to ensure reaching the limit switch (0=No, 1=YES).

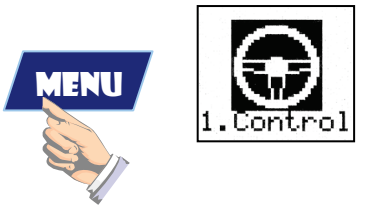
Attic Operate Until Day: Set the last day for attic operation.

Close Attic At This Fan ON Temp: Select fan (tunnel/exhaust) for the attic to close when the temperature reaches this fan's "ON" temperature.

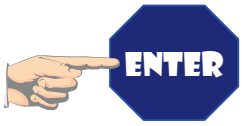
Max Temperature to Disable Attic: Set the maximum temperature to stop attic. If the temperature exceeds the set temperature then the above two options are no longer relevant and attic is closed and disabled.

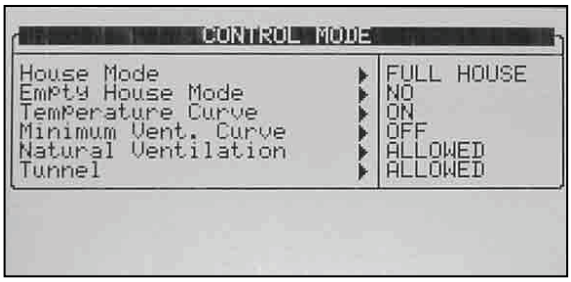
1.6 Control Mode

Choose house operating modes, turn temperature curves on or off and select which type of min/max level method to use.



5. Control Mode

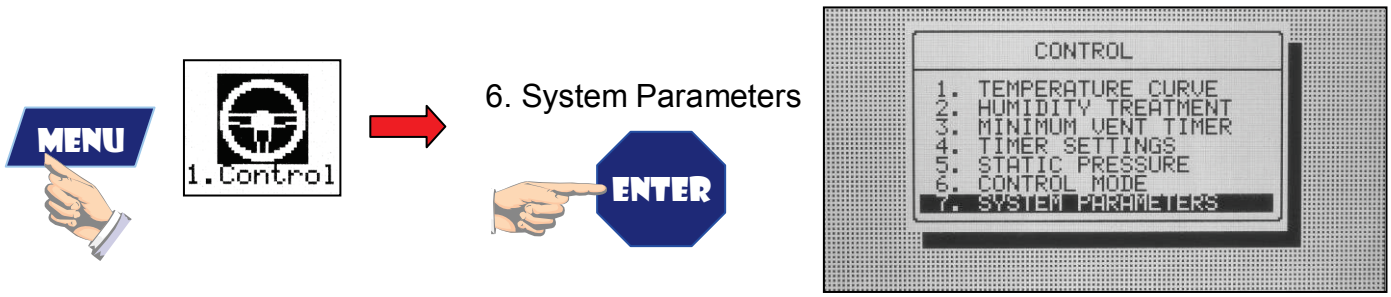




- **House Mode:** Select whether the house is in one of the brood set ups, or in full house.
- **Empty House Mode:** Select **YES** in order to disable all alarms.
- **Temperature Curve:** Select **NO** to disable curve. Temperature settings become fixed values.
- **Minimum Vent Curve:** Set **ON**/**OFF** for automatic minimum ventilation ramping
  - **On:** A curve according to days
  - **Off:** Time changes at start day of each line in Min Vent tables
- **Natural Ventilation:** Select either to **NOT ALLOW** or **ALLOW** natural ventilation (Cannot edit this parameter if in the **INSTALL | SETUP** menu "NO" is defined for Natural Ventilation).
- **Tunnel:** Select either to **NOT ALLOW** or **ALLOW** tunnel ventilation.

1.7 System Parameters

System Parameters consolidates all of the **HELP | SET** menus into one scroll screen.

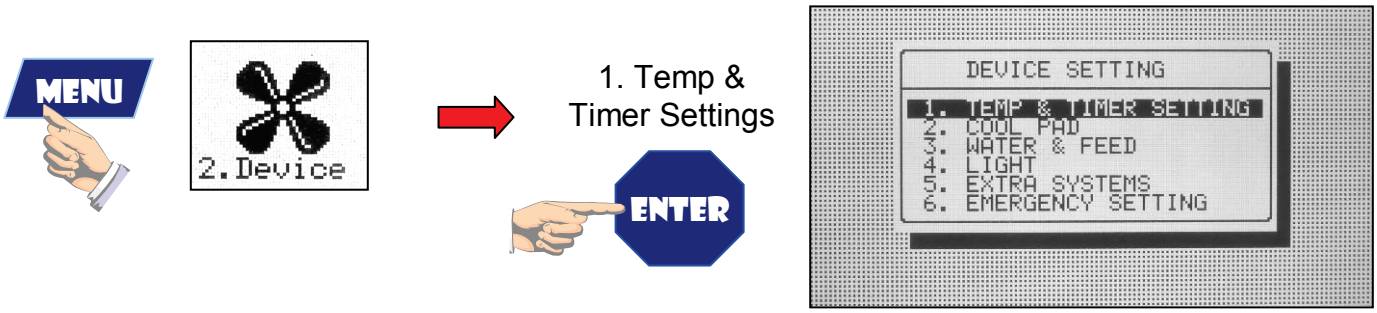


SYSTEM PARAMETER	SECTION	PAGE
Temperature Curve HELP | SET	1.1	8
Static Pressure HELP | SET	1.5	15
Curtain Minimum Vent HELP | SET	1.2	2
Temp & Timer Settings HELP | SET	2.1	20
Cool Pad HELP | SET	2.2	*Refer to the Precision Manual*
Light HELP | SET	2.4	*Refer to the Precision Manual*
Feed Inventory HELP | SET	3.2	*Refer to the Precision Manual*
Emergency Setting HELP | SET	2.6	*Refer to the Precision Manual*
Alarm Setting HELP | SET	3.5	*Refer to the Precision Manual*

2. DEVICE

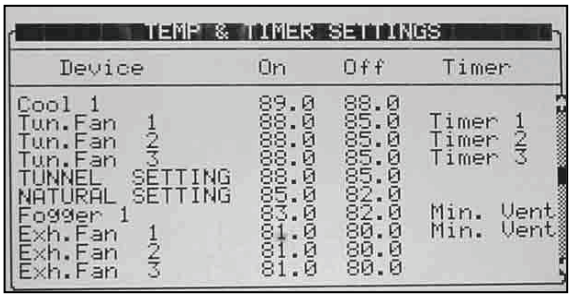
2.1 Temp & Timer Setting

This section enables the user to set both the temperature and the timer choosing the required device.



Available Devices:

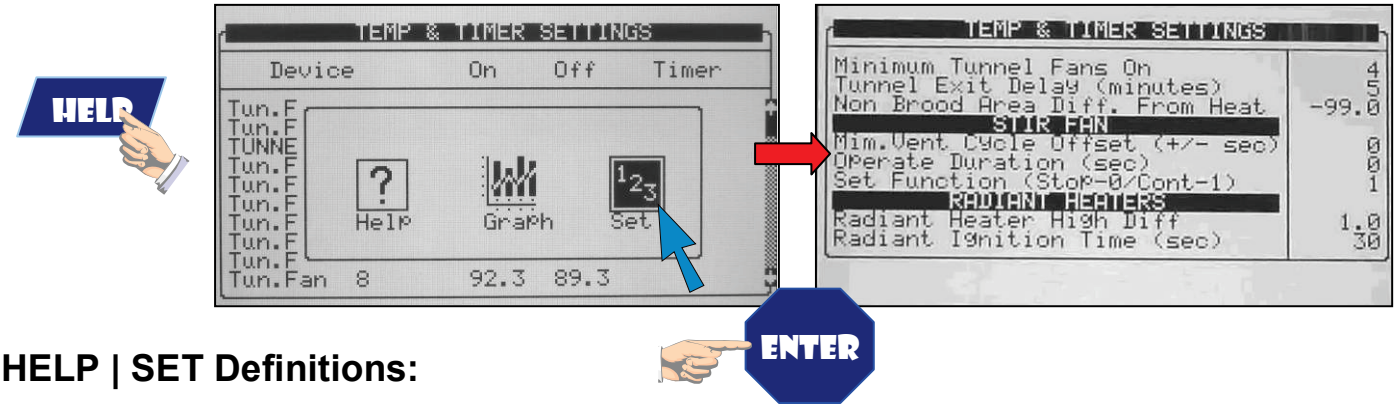
- Cool 1
- Tunnel Fans 1-20
- Tunnel Setting
- Natural Setting
- Fogger 1
- Exhaust Fans 1-3
- Stir Fans 1-2
- Set Temperature
- Heats 1-2
- Radiant


TEMP & TIMER SETTINGS
Device On Off Timer
Cool 1 89.0 88.0
Tun.Fan 1 88.0 85.0 Timer 1
Tun.Fan 2 88.0 85.0 Timer 2
Tun.Fan 3 88.0 85.0 Timer 3
TUNNEL SETTING 88.0 85.0
NATURAL SETTING 85.0 82.0
Fogger 1 83.0 82.0 Min. Vent
Exh.Fan 1 81.0 80.0 Min. Vent
Exh.Fan 2 81.0 80.0
Exh.Fan 3 81.0 80.0

- **Device:** Select from the list (see above).
- **On/Off:** Set when the device starts/stops operating.

  NOTE: "OFF" value may remain empty.
- **Timer:** Can be one of the following options – **None**, **Timer 1-4**, or **Min. Vent**.

TEMP & TIMER SETTINGS HELP | SET

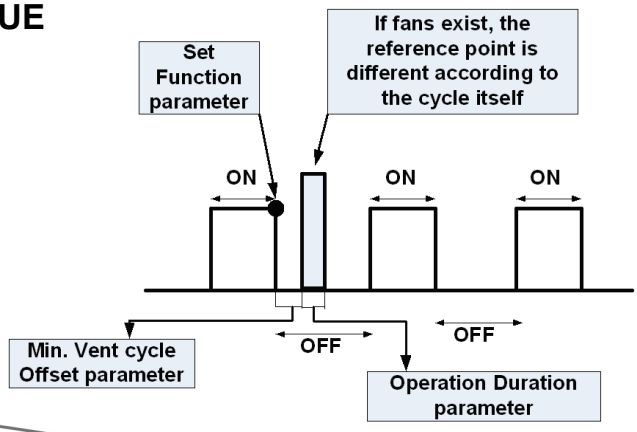


HELP | SET Definitions:

- **Minimum tunnel fans on:** The minimum number of fans in tunnel entry. If not enough fans exist for operating according to temperature, the fans with the lower temperatures will be added in order to reach that number. If not enough fans that can operate in tunnel exist, an alarm will be activated.
- **Tunnel exit delay (minutes):** The time ***Platinum*** waits after satisfying tunnel exit conditions.
- **Non brood area diff. from heat:** Set point for non-brood heaters. Can be either positive or negative where **positive = warmer** and **negative = cooler**. (-99) = heaters not operating.

STIR FAN

- **Min. vent cycle offset (+/- sec):** Set the required cycle offset measured in seconds regarding minimum ventilation. If the fan is Min Vent, and its end reference point is defined as Time **'ON'** in Stir Fan, then only the ones set as Min Vent will operate according to the cycle set in the **CONTROL | TIMER SETTINGS** menu.
- **Operate duration (sec):** Set the time measured in seconds for duration of operation.
- **Set function (stop-0/cont-1):** Choose what happens when the operation temperature is reached. From this point on, choose if to continue operating constantly or to stop completely without a cycle. **0=STOP 1=CONTINUE**



RADIANT HEATERS

- **Radiant Heater High Diff:** In order to activate radiant heating, this is the difference above radiant heat temperature.
- **Radiant Ignition Time (sec):** Set time to begin ignition of radiant heater.

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